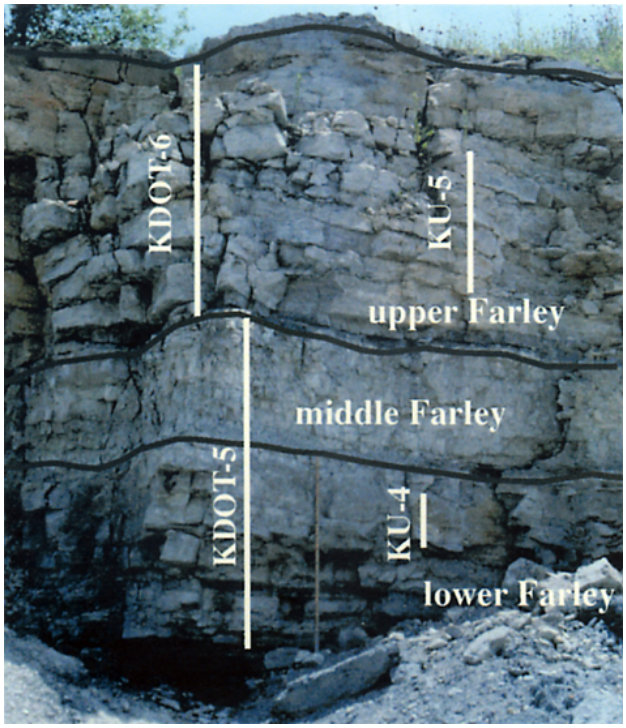


(A)

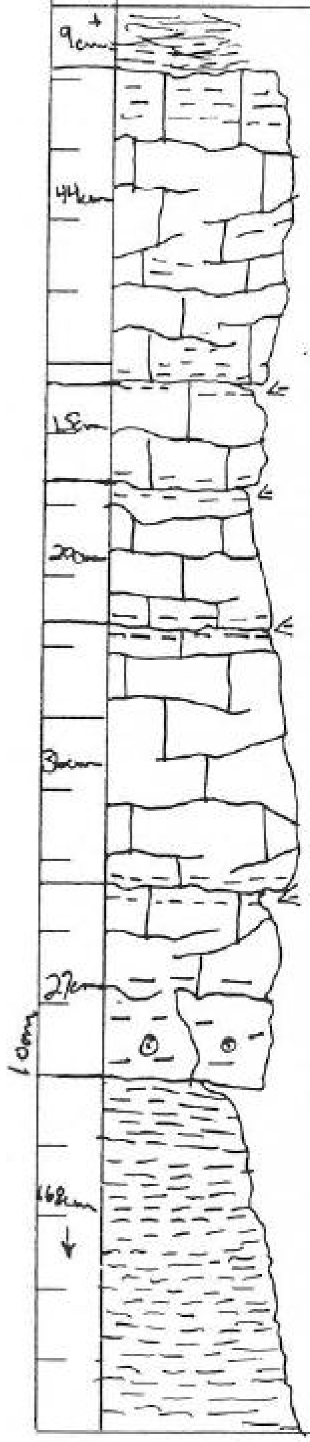
(B)

Figure A1.8: Outcrop photos of measured sections from Shawnee Rock Company's Bonner Springs quarry. Measuring staff in each photo is 1.5 meters for scale.

(A) Upper portion of the lower Farley in addition to the middle and upper Farley members. The middle Farley here is dominated by a thick bed of limestone, and not the normal shale as in other localities. Locations from which aggregate samples KU 4 & 5 as well as KDOT 5 & 6 were taken are marked.

(B) Island Creek Shale interval and the majority of the lower Farley limestone. The lower Farley here includes a thick section of interbedded limestone and siltstones.

Rock Unit(s): Lower Farley



Thickness	Lithology & Weathering Profile	Fossils & Grains	Sed. Struct & Diag. Feat.	Rock Name (Dunham)	Cement	Color	Sample No.	Photo No.	Additional Remarks
9cm		#							
44cm		~ ⊖		Phylloid-Algal Wackestone	Spar replaces phyls w/fossils & fills shelter (~15%)		BS-13		Shale/clay concentrated in pockets & seams throughout. (~30% contains clay)
15cm, 20cm, 30cm		~ # ⊖		Phylloid-Algal Wackestone	Spar replaces phyls. & fossils fills interparticle shelter pores (~1mm–4mm) (~15-20%)		BS-12, BS-12a		Shale seams @ bedding planes diffuse up & down into Ls. (~5-10%) Most phylloids very fragmented Fewer phyls & more large brachs near the top
27cm		~ ⊖ #	(FES)	Phylloid-Algal Wackestone	Some spar in phyls & fossils (~10%)	Greenish Gray			Some diffuse clay seams @ top of oolite & in wkst (~10%)
10cm		⊙ ⊖		Oolite	No coarse spar visible in oolite	Med-dark gray	BS-11		Distinct upward lithology change. Overall darker in color (6% & less than clay)
168cm		# ⊖		Fossiliferous shale					Island Creek shale

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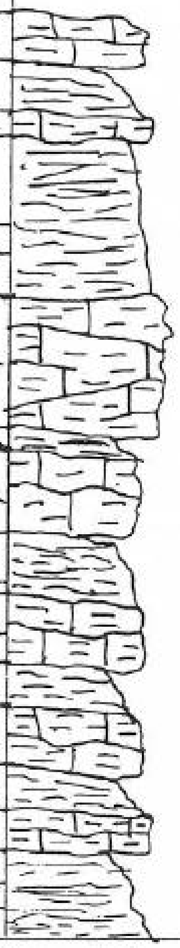
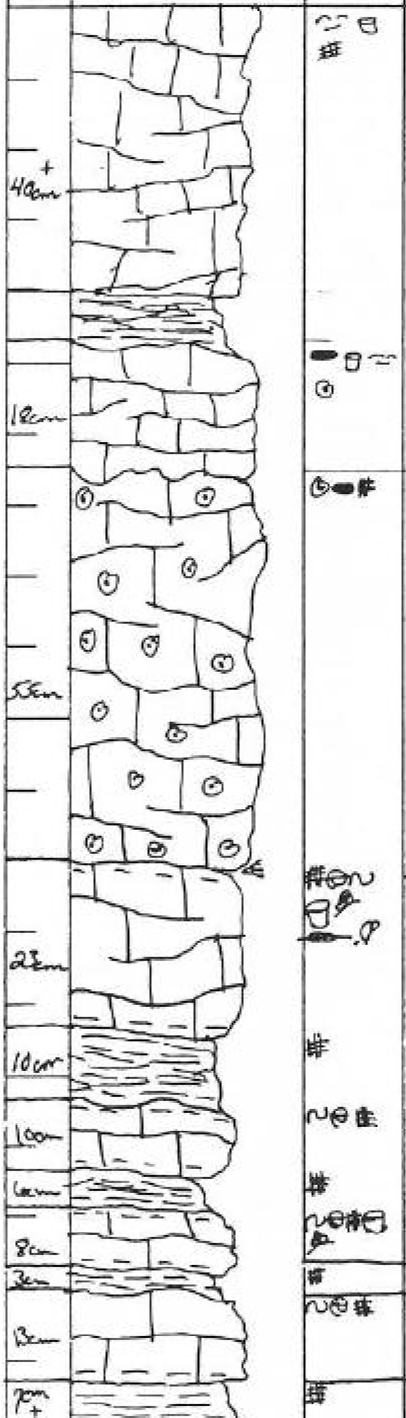
Rock Unit(s): Lower Farley

Thickness	Lithology & Weathering Profile	Fossils & Grains	Sed Struct & Diag. Feat.	Rock Name (Dunham)	Cement	Color	Sample No.	Photo No.	Additional Remarks
7cm, 7cm, 4cm, 22cm, 18cm, 2cm, 12cm, 8cm, 10cm, 7cm, 8cm, 6cm, 6cm		#		"Alternating argillaceous phylloid algal wackestone + Fossiliferous siltstone	Spar content varies w/ amount of fossil material. Replaces phylds + fossils + fills cracks (~15-30%)	LS are bluish gray	BS-17, BS-16, BS-15, BS-14		LS are all highly argillaceous + "dirty". All have clay throughout their thickness. Too diffuse to form any seams or pockets. Over 50% in all
12cm		#		Fossil/Silty Siltstone			BS-18		Cont. from pg 1.

Rock Unit(s): Farley LS



Thickness	Lithology & Weathering Profile	Fossils & Grains	Sed Struct & Diag. Feat.	Rock Name (Dunham)	Cement	Color	Sample No.	Photo No.	Additional Remarks
40cm+				Skeletal Wackestone (Mudstone?)	Very finely recryst. Microspar-micrite matrix (Spar = ~5%)				Very blocky nature. Abundant vert. fractures. Clean of clay content. Mostly micrite matrix
				Siltstone					
12cm				Peloidal, Skeletal Packstone	Spar content is totally cryst. (~15%)		BS-4		Much coarser grained than oolite below. Thickness varies laterally. No clay
55cm				Oolitic Peloidal Packstone	Highly recryst. w/very fine spar. Coarse spar not visible [illegible] (~25%) All spar much less than .5mm		BS-3; BS-2		No clay present. Large fenestrate bryozoans in some places. Small ooid size. Very little micrite present.
23cm				Pelloidal, Skeletal Packstone	Sk. hash is mostly recryst. Fine spar (≤1mm) (~15-20%)		BS-2		Sk. debris concentrated in pockets. Shale seams @ base s[illegible] (~10%)
10cm				Foss. Siltstone					Alternating siltstn/LS succession
10cm				Phylloid Algal Wackestone	Spar replaces phylloid fossils (~10-15%)				
6cm				Foss. Siltstone					LS beds are argillaceous throughout + some have shale seams at the
8cm				Phylloid Algal Wackestone	As above (~10-15%)		BS-1		
3cm				Foss. Siltstone					
13cm				Phylloid Algal Wackestone	As above (~10-15%)				
7cm+				Foss. Siltstone					

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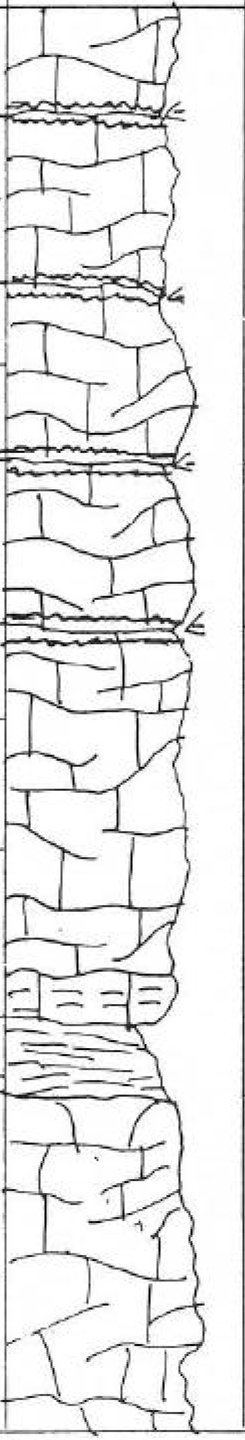
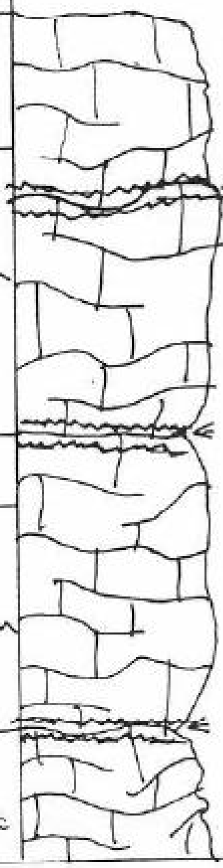
Rock Unit(s): Farley[illegible]



Thickness	Lithology & Weathering Profile	Fossils & Grains	Sed. Struct & Diag. Feat.	Rock Name (Dunham)	Cement	Color	Sample No.	Photo No.	Additional Remarks
15cm+							KDot-5		Shale partings between bedding planes. Shale diffused up + down from bedding planes. Mostly concentrated there (~5-10%)
24cm		~ ⊖ #	A.B.	Phyl. Algal Wackestone	Med-coarse spar found around phyl blades in shelter pores. Fills + replaces fossils. (≤3mm) (~25-30% total)				Abs. autoclastic/compactional brecciation
24cm		~ ⊖ #	A.B.	Phyl Algal Wackestone	Spar also found in breccia fabric.		BS-20		Only about 15% of spar is in large shelter pores or fractures. Most is in thin fractures + phylloid algae
25cm		~ ⊖ #	A.B.	Phyl. Algal Wackestone					
53cm		~ ⊖ #		Phylloid-Algal Wackestone	Spar coarser towards the base (≤3mm). Coarse spar fills breaks (~20%)		BS-7, BS-6		Transitional Marker Bed. Abs large-scale breccia. Clay-rich diffused along bedding planes (≤10%)
				Osagia, Brach Wacke-Packstone			BS-5		
11				siltstone					Blocky texture; laterally persistent
48cm+				as below	Small amounts of very fine spar (≤5%)		BS-4		

Date ____________ Location [illegible] #2 Bonner Springs, KS Page 2 of 3

Rock Unit(s): ____________

Thickness	Lithology & Weathering Profile	Fossils & Grains	Sed. Struct & Diag. Feat	Rock Name (Dunham)	Cement	Color	Sample No.	Photo No.	Additional Remarks
59cm		~ #	AB λ ~	Phyl. Algal Wackestone	Some fine spar (infilled) fractures (~10%)		BS10		Sk. debris in pockets. Clay around bedding planes. (≤ ~5%) in cockaded seams.
46cm		~ # ~	AB λ ~	Phyl. Algal Wackestone	Spar fills fossils & fractures (≤2-) (~15-20%)		BS9		Sk. debris in fracture fills
19cm		~⊕ #	⊖ AB Ψ	Phyl. Algal Wackestone	as above		BS8		as above

Date ____________

Location Shawnee Rock #2, Bonner Springs

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Locality SRO: Quarry section. Measured in an active quarry operated by Shawnee Rock Company. Quarry is located in Olathe west of Lone Elm Road on 151st Street. Section measured was located on the south wall of the quarry. Measured section includes only the Farley Limestone but the Argentine Limestone and the Bonner Springs Shale were both briefly examined here also. The Lane-Island Creek Shale is missing at this locality. Aggregate samples KU-3 and KDOT-3, 4 and 12 are from this quarry.